

CLAIMS

1. An error detection/correction system in data transmission between a plurality of modules that are connected via buses in a controller, wherein

a plurality of error detection/correction code generation circuits having a difference in at least one of an inspection bit length, an information bit length, and a correction capacity, and error detection/correction circuits corresponding to the error detection/correction code generation circuits are built into the system, and

an the error detection/correction code generation circuit and the error detection/correction circuit to be used are switched over dependent upon a kind, a length, and a timing of the data to be transferred.

2. The error detection/correction system according to claim 1, wherein the error detection/correction system switches over between error detection/correction codes to be used dependent upon on a phase of transmitting an address, a command, and data.

3. The error detection/correction system according to claim 1, wherein the error detection/correction system switches over error detection/correction codes to be used dependent upon whether at a time of single access or at a time of burst access.

4. The error detection/correction system according to claim 1, wherein the error detection/correction system switches over between error detection/correction codes to be used,

dependent upon a data quantity to be transferred.

5. A controller in which a plurality of modules that adopt the error detection/correction system according to any one of claims 1 to 4 are connected via buses.

6. The controller according to claim 5, wherein the controller comprises a serial transfer module that connects a plurality buses connected with the plurality of modules, by means of a serial transmission line, and

a plurality of error detection/correction code generation circuits having a difference in at least one of an inspection bit length, an information bit length, and a correction capacity, and error detection/correction circuits corresponding to the error detection/correction code generation circuits are built into the serial transfer module, and the error detection/correction system according to any one of claims 1 to 4 is used also for the serial transfer.